

# VATA

*Anatomical Healthcare Models*

## **Nita Newborn™ Model 1800 User Manual**



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# Meet Nita Newborn™

**Nita Newborn™** is a unique latex-free, anatomically accurate representation of a 4 lb., 16 inch female baby developed to teach and practice vascular accessing of newborns and infants. An invaluable teaching aid, this model permits instruction in the skills associated with accessing, securing, dressing, site care and maintenance for standard venipuncture, central catheters, PICC lines and umbilical catheters. These techniques can now be mastered on a realistic model before they are performed on newborns and infants.

A realistic flashback of simulated blood confirms correct needle location in the vein. All veins allow the opportunity to practice blood withdrawal, fluid infusion and heparinization.

A unique feature of the simulator is a life-like umbilicus allowing the repeated catheterization of the umbilical vein, using a 5FR catheter, with proper placement being verified by a blood return. Umbilical tape can even be tied around the umbilicus to secure the catheter.

When accessing, the skin rolls as you palpate the vein and a “pop” is felt as the needle enters the vein. Vein size and wall thickness have been selected to provide the realistic feel and appearance of a newborn. The translucent skin allows visualization of the underlying blue veins. The blue colored veins, made of self-sealing material, are able to be accessed repeatedly.

**Nita Newborn™** is easily maintained with replaceable veins and skins. Simplicity of design allows for easy set up and ensures a realistic training experience.

Nasal and oral openings with internal passageways are present. These permit the verification of nasal airway patency, placement of nasal cannulas, suctioning of upper airway, measurement of proper feeding tube length using anatomical reference points and procedures associated with gavage feeding.

## Contact Information

Whatever your question, problem, or comment, **VATA's** Customer Service is here to help. There are four quick, easy ways to contact us, so you can choose what works best for you. If there's anything we can do, just let us know!

**VATA Inc.**

**308 South Sequoia Parkway, Canby, Oregon 97013, USA**

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## List of Components:

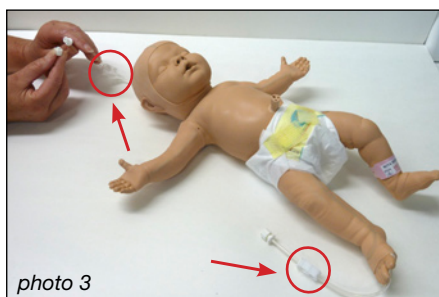
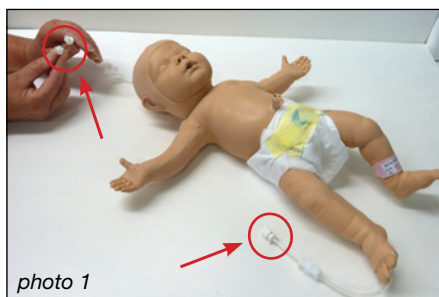
- |                           |  |
|---------------------------|--|
| ❶ Carrying Case – 0875    | ❸ I.D. Bracelet                                      |
| ❷ Female Baby Body – 1800 | ❹ Diaper   |
| ❸ Umbilicus – 0804        | ❺ Vein Tubing with<br>Umbilical Valve – 1805         |
| ❹ Right Arm Skin – 0806   | ❻ Blood Reservoir Bag with<br>Attached Tubing – 0609 |
| ❺ Left Arm Skin – 0807    | ❼ One Pint Bottle of Simulated<br>Blood Concentrate  |
| ❻ Right Leg Skin – 0808   | ❽ Instruction Manual                                 |
| ❼ Head Skin – 0809        |  |



**IT IS STRONGLY SUGGESTED THAT THE ENTIRE MANUAL  
BE READ PRIOR TO USING NITA NEWBORN™**

## Setting up for Use:

1. Remove bottle with simulated blood concentrate and add 380cc of distilled water; mix and set aside.
2. Remove the blood reservoir bag with attached tubing, making sure the roller clamp is closed, and fill with the simulated blood.
3. Hang the blood reservoir bag approximately 16 inches above the model. Note: While some leakage is normal, hanging the blood reservoir bag over 16 inches high can result in too much pressure and excessive leakage.
4. Remove **Nita Newborn™** from case by releasing the Velcro strap.
5. Place **Nita Newborn™** on a level surface near a sink and remove the white luer caps on the end of the clear tubing exiting the head and the right leg (See *photo 1*).
6. Position the leg tubing over the sink and slightly elevate the feet above the head. Attach the blood reservoir bag tubing to the tubing exiting the head (See *photo 2*).
7. Open the white snap clamps on both of the clear tubes exiting the model (See *photo 3*).



## Setting up for Use:

8. Gradually prime the veins with simulated blood by slowly opening the roller clamp on the blood reservoir bag tubing attached to the clear tubing on the head. Permit simulated blood to flow through the system until a solid stream of blood is visible in the clear tubing exiting the leg (See *photo 4*). Close the snap clamp on the leg tubing and re-attach the white cap.
9. The legs can now be lowered. If you are planning on accessing with an umbilical catheter it is best to place Nita on an absorptive surface as some leakage is normal when working with an umbilical catheter (See *photo 5*).
10. **Nita Newborn™** is now primed and ready to use.



**Please note** when using 24g and smaller IV catheters it may take more time to see a flashback. You can enhance the visualization of seeing a flashback by securely closing the top on the blood reservoir bag with the simulated blood and gently squeezing the bag to increase the pressure in the system. Caution – over squeezing can cause the blood reservoir bag top to pop open and fluid to leak out.

## **Access Sites Available**

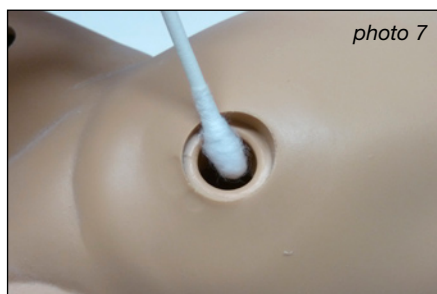
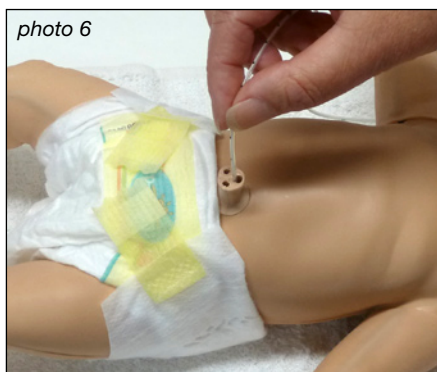
- Frontal scalp vein on forehead
  - Temporal scalp vein on left side of head
  - Posterior Auricular scalp vein on left side of head behind ear
  - Jugular on left side
  - Basilic on right and left arm
  - Cephalic on right arm
  - Superficial veins on back side of right hand, just below the first and third digits
  - Superficial vein on backside of left hand, just below the fourth digit
  - Great Saphenous vein, Dorsal Venous Arch, and Small Saphenous vein on right leg
  - Umbilical vein
- 

## **Additional Features**

- Measurement of proper feeding tube length, using anatomical reference points.
- Procedures associated with gavage feeding
- Practice of placing and securing nasal cannulas
- Suctioning of nasal passages and the ability to verify patency of nasal passages
- Suctioning of the upper airway
- Fluid can be introduced into the nasal and oral passageways to practice aspiration

## Accessing with an umbilical catheter

**Nita Newborn™ Model 1800** has a newly designed valve that permits fluid withdrawal and infusion. The new valve will only perform properly with a 5FR umbilical catheter; use of another size may result in excessive leakage. A polyurethane catheter will work best due to its stiffness, but a silicone catheter may also be used. Thread the umbilical catheter down any of the three openings of the umbilicus, as they all join at a common point (See *photo 6*). Rolling the umbilical catheter between your fingers as you insert the catheter will aid in advancing the catheter through the umbilical valve. This motion should be done quickly to seat the catheter in the valve and to minimize leakage. Once the umbilical catheter is placed, you can infuse and withdraw fluid. Some leakage may occur and be visible on the surface or under the model after infusing which is normal. Once you have completed the session, remove the umbilical stump and use a Q-tip to soak up any liquid present on the top of the valve (See *photo 7*).



## Cautions:

- Do not use solvents to clean the model as they may cause damage.
- Simulated blood is for use with **Nita Newborn™** only and is not intended for any other use.
- Do not use dull or burred needles as these will damage the vein tubing and may cause the veins to leak.
- While some leakage is normal, exceeding 500cc of simulated blood or a fluid bag height of 16 inches will increase fluid pressure and may result in excessive leakage through previously accessed sites.
- Do not place model on printed matter or mark with a pen as this will permanently stain the model's skin.
- Do not replace skin and veins if model has not received the barrier coating. Material reaction will occur, resulting in break down of skin and veins.  
\*\*\* See NOTE in Replacement Parts for Nita Newborn™ on page 12



## Care and Cleaning of Nita Newborn™

1. After each use close the roller clamp on the blood reservoir bag tubing and the snap clamp on the clear tubing exiting the head.
2. Disconnect and drain the blood reservoir bag. Flush blood reservoir bag and tubing with water.
3. Refill blood reservoir bag with clean water and reattach to clear tubing exiting the head.
4. Position clear leg tubing over sink or container and remove white cap. Open snap clamps, followed by roller clamp, and flush the model until clean water is visible in clear leg tubing.
5. Disconnect and drain the blood reservoir bag.
6. It is recommended that a 12cc syringe or larger be used to blow out any remaining water. To do this pull back on plunger and then insert syringe into the fitting on clear tubing exiting the head. Push plunger in and repeat until water is no longer visible coming out of the clear tubing at the foot (See photo 8).
7. Ordinary stains can be removed by washing with soap and warm water.
8. Return model to case and store with white end caps removed and snap clamps open to allow tubing to dry.

The life of the vein and skins will be maximized by the use of small gauge needles (22g or smaller) and proper care and storage. Over time and use, it may become necessary to replace the vein and skins.

**\*\*\* See NOTE in Replacement Parts for Nita Newborn™ on page 12**



photo 8



## Problem Solving:

**Problem:** Unable to prime model

**Solution:** Verify that both snap clamps are opened and the white caps have been removed. Check roller clamp. Visually inspect vein tubing for any twisting or kinking. Be aware the ID of the tubing is very small and it may take several minutes to prime.

**Problem:** Unable to infuse fluid

**Solution:** Check steps above. Check that fluid bag does not contain more than 500cc.

**Problem:** Air present when withdrawing from veins

**Solution:** Model is not properly primed. Re-prime and flush trapped air until no air is present in leg tubing.

**Problem:** Unable to insert umbilical catheter

**Solution:** Check that you are using a 5FR umbilical catheter, as this is the size that will minimize leakage. Umbilical catheters made of softer materials should have the “guide wire/stiffening wire” left in place to aid placement. Check backside of the model to make sure that the umbilical valve housing is pushed all the way in. Place a small amount of Vaseline on the catheter and re-insert.

## Instructions for Replacing Veins on Nita Newborn™

1. Remove head, two arm and right leg skins. New veins sets are supplied with the barbed female luer fitting not installed. Do not install these until step #6 below.

2. Remove umbilicus and take the eraser end of a pencil to gently push down in the umbilicus opening to dislodge the umbilical valve (See photo 9 and 10).

**Note:** Your umbilicus may look different, as the one shown in photo 10 is newly redesigned. Remove umbilical valve and blue vein tubing.

3. From the backside of the baby, install the new umbilical valve, checking that the shorter end (15") of the blue veins is oriented toward the legs. Follow the arrows and lettering to re-vein both of the veins (A, B, C for the shorter length blue veins and D through K for the longer blue veins (See photo 11). **Continued on page 11...**

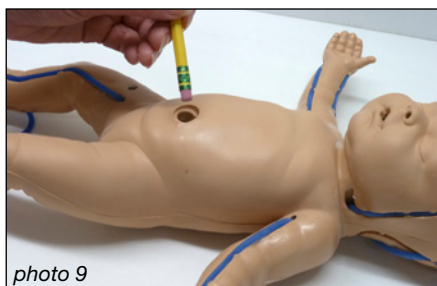


photo 9

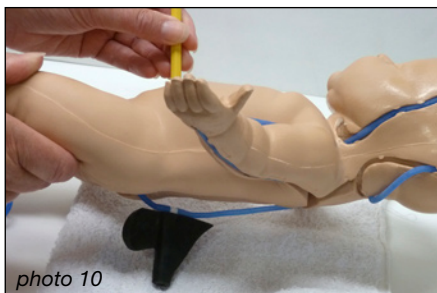


photo 10

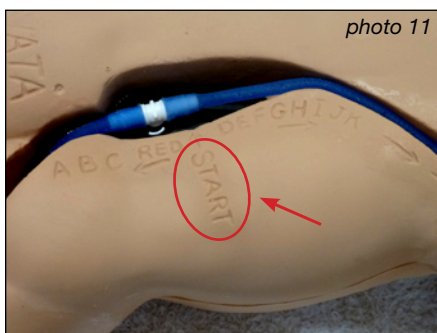


photo 11

\*\*\* See NOTE in Replacement Parts for Nita Newborn™ on page 12

## Instructions for Replacing Veins on Nita Newborn™ Continued

3. **Continued from page 10...** It is important to secure the veins under the tabs in the vein channel. To do this, place one finger on the installed veins, pressing down to stabilize it. With your other hand, pinch the loose vein with thumb and pointer finger and stretch/pull it to reduce its width (See *photo 12*) which will make it easier to position it below the tabs. Release the pinched end first (See *photo 13*) and repeat until done.

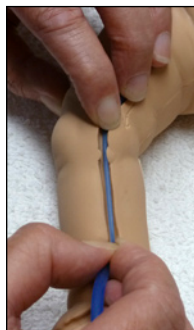


photo 12

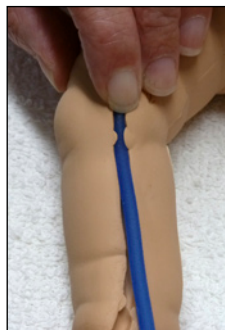


photo 13

4. Reinstall arm and leg skins.
5. When reinstalling the head skin place the clear tubing through the hole in the head skin from the inside and then pull the skin onto the head securing the chin strap under the chin.
6. Install the snap connector and the female barb fitting at the end of each of the clear tubes exiting the head and leg (See *photo 14*).

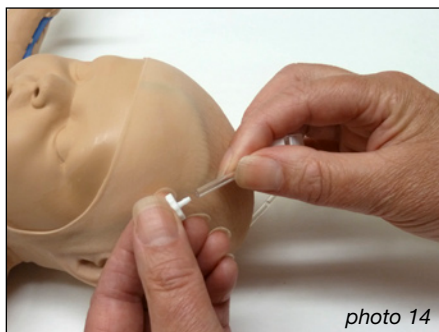


photo 14

\*\*\* See NOTE in Replacement Parts for Nita Newborn™ on page 12

## Replacement Parts for Nita Newborn™

| <u>Item #</u>   | <u>Description</u>  |
|-----------------|---|
| <b>1800</b>     | <b>Nita Newborn™</b>  |
| <b>1801</b>     | Replacement Skin and Vein Set - Latex Free (includes Head, Leg, Right Arm and Left Arm) *** <b>see NOTE below</b> |
| <b>1805</b>     | New Vein Set with Umbilical Valve Attached - Latex Free   |
| <b>0804</b>     | Replacement Umbilicus   |
| <b>0806</b>     | Right Arm Skin  |
| <b>0807</b>     | Left Arm Skin   |
| <b>0808</b>     | Right Leg Skin  |
| <b>0809</b>     | Head Skin   |
| <b>0875</b>     | <b>Nita Newborn™ Case</b>   |
| <b>0609</b>     | Blood Reservoir Bag with Attached Tubing  |
| <b>1491</b>     | Simulated Blood-Stain Resistant-One Quart   |
| <b>1494</b>     | Simulated Blood-Stain Resistant-One gallon  |
| <b>LF01022U</b> | Fluid Supply Stand  |

\*\*\***NOTE:** New skin and vein sets should only be used on models that have had a barrier coat applied. You can tell if your model has the barrier coat by looking on the left buttocks and seeing if there is a small recessed dimple above the last "A" in **VATA** (See photo 15).

If your model does not have the recessed dimple, please contact **VATA** to have your model returned and the barrier coat applied at no charge. Contact us at **503 651-5050** or email at [info@vatainc.com](mailto:info@vatainc.com)



photo 15

## Refurbish Service

Factory refurbishing of your model is available which includes replacement of all parts as needed. Please call for more information.

308 South Sequoia Parkway, Canby, Oregon 97013 USA  
ph. 503.651.5050 | fax 503.651.5052 | email [info@vatainc.com](mailto:info@vatainc.com) | [www.vatainc.com](http://www.vatainc.com)